

PARATYDEIDAE, A NEW FAMILY OF MITES

(ACARINA)

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In the material collected by Riley A. Alexander, of the Bureau of Entomology and Plant Quarantine, at Brownsville, Texas, on plant importations from Mexico was a tiny mite which at first sight appeared to belong to the family Tydeidae. However, upon examination with the oil-immersion lens it was clearly seen that this mite, although related to the Tydeidae, was distinct and easily separated from that and all other described families. Accordingly, the family Paratydeidae is here proposed for it, with the new genus *Paratydeus* as the type.

Berlese (1910) proposed the genus *Scolotydaeus*, in the family Tydeidae, for a single species, *S. bacillus*, which he found in moss in Italy and which Sig Thor (1932; 1933) found in Norway. The gross characters of that mite and the one here described are similar. Both are small, elongate, and of the same size, and both have the hysterosoma constricted behind the third pair of legs. *Scolotydaeus*, according to information received from Dr. G. Lombardini of Florence, Italy, has tiny clawlike pulvilli, although these were not originally seen by Berlese.

Dr. Lombardini has written in regard to *Scolotydaeus bacillus* Berlese "ma non ho potuto vedere il preparato di *Scolotydaeus bacillus* Berl., forse non era material suo e dovette rimandarlo al proprietario. Però in margine alla descrizione della specie il Prof. Berlese apportò la seguente modificazione: "mandibulae ut in gen. *Tydaeus*; ambulacra unciis duobus magnis inter quos unus stat minimus basalis quasi calcaneum. (370 x 120)."

The other characters of the new species, such as the presence of the lenslike eyes, the pseudotracheae or peritremes and the arrangement and number of propodosomal setae are distinctly different and should have been seen by Berlese and Sig Thor if present in *Scolotydaeus*. Berlese illustrated such features in other mites at the time of the description of *S. bacillus*, so it must be assumed that *Scolotydaeus* is a true Tydeidae and that *Paratydeus* represents a new family.

PARATYDEIDAE, new family

Prostigmatic, with pseudotracheae or peritremes as in the predaceous Cheyletidae; palpi four-segmented, without claw-thumb complex and with tarsal segment terminal; cheliceral bases fused, movable chela short, non-retractile, Tydeidae-like, for piercing; body elongate; propodosoma and hystero-

soma without plates, skin striate; hysterosoma divided dorsally by distinct suture behind third pair of legs; body with few simple setae; propodosoma with two pairs of long sensory (?) setae, one pair of short setae, two pairs of lenslike eyes, and two pairs of lateral peglike setae; anal opening on venter at rear; genital opening separated from anal opening, behind coxae IV, without genital suckers and possessing two pairs of genital setae; coxae I-II and III-IV in two widely separated groups; coxae of legs fused with body; legs sparsely haired; tarsi with two claws and a small clawlike pulvillus; tarsus I with two short rodlike sensory setae.

Type of family: *Paratydeus*, new genus.

The possession of the lenslike eyes, pseudotracheae, and tarsal I sensory setae separates this family from the Tydeidae. Combinations of such characters as lack of a palpal claw-thumb complex, sensory setae, arrangement of chelicerae, etc., separate this from other families which may possess one or more of these characters.

Paratydeus, new genus

With the characters of the family.

Type. *Paratydeus alexanderi*, new species.

Paratydeus alexanderi, new species

(Figs. 1-8)

Small mite, 366 μ long; without shields; skin striate; with pseudotracheae as illustrated (fig. 2); palpi (figs. 2, 3) four-segmented, without claw-thumb complex, segment II with two dorsal setae, segment III with three setae and segment IV terminal, with four simple setae and four rodlike setae; cheliceral bases (fig. 2) fused, with a pair of dorsal and lateral setae; movable chela (fig. 3) as in the Tydeidae, short, sharp, non-retractile, for piercing; venter of gnathosoma with three pairs of simple setae; body elongate; propodosoma and hysterosoma (fig. 1) divided dorsally by a distinct transverse suture; propodosoma (fig. 2) with two pairs of lenslike eyes, with two pairs of what appear to be long sensory setae, a pair of simple setae anterior to the eyes and two pairs of small peglike setae above trochanter I; a faint design of radiating lines on propodosoma as figured as well as a pair of clear round areas present between the posterior peglike setae; hysterosoma divided by transverse suture behind coxae III; anterior portion of hysterosoma with a transverse row of four setae and posterior portion with six pairs of dorsal setae and two pairs of posterior-dorsal setae; anal opening on venter at rear, with two pairs of anal setae and with two pairs of setae laterad of anal opening; genital opening between anus and coxae IV, simple, without genital suckers and with two pairs of genital setae; two pairs of setae laterad of opening; coxae in two distinct groups, fused with body, not movable; legs with few simple setae; all tarsi with a pair of claws and a small clawlike pulvillus; tarsus I (fig. 5) with two rod-

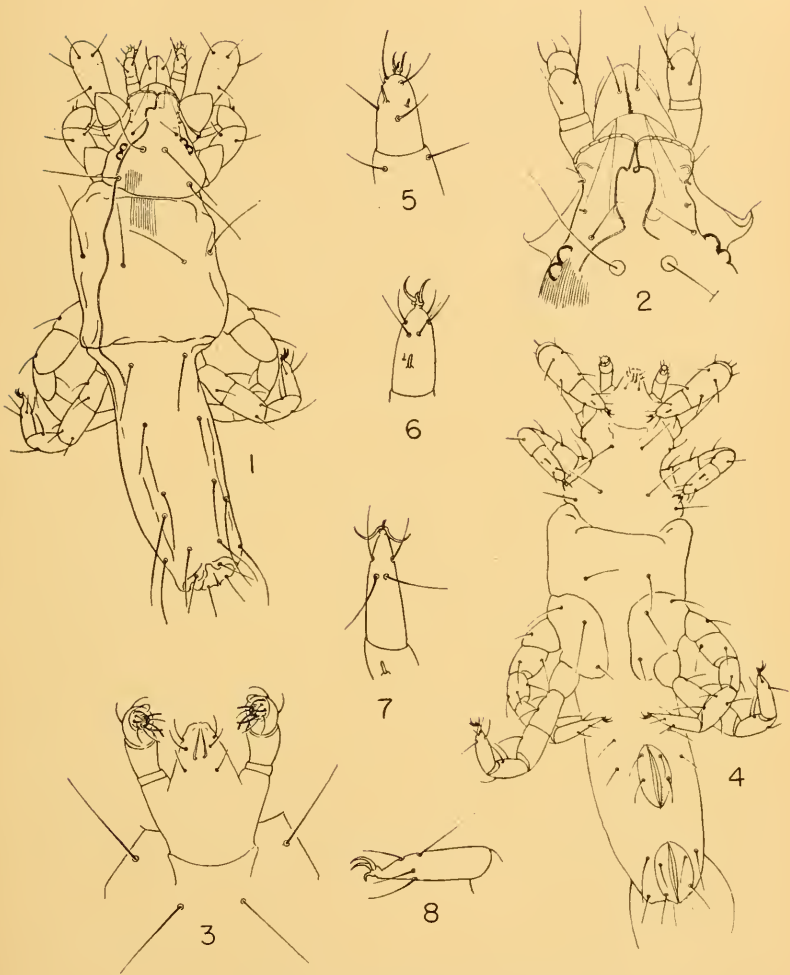


PLATE 9. *PARATYDEUS ALEXANDERI*

Fig. 1, dorsum; fig. 2, detail of anterior dorsal portion of propodosoma and gnathosoma; fig. 3, detail of anterior ventral portion of mite; fig. 4, ventral view; egg shown as dotted line; fig. 5, tarsus I; fig. 6, tarsus II; fig. 7, tarsus and tibia III; fig. 8, tarsus IV.

like sense setae; tarsus II with a single such sensory setae (fig. 6); tarsi III and IV (figs. 7, 8) without sensory setae; tibia III (fig. 7) with a rodlike sensory seta.

A single specimen, an adult female with an egg, was intercepted at the Plant Quarantine Station, Brownsville, Texas, on a twig with bananas from Mexico, by Riley A. Alexander, November 12, 1947, and is named for him.

Type. U. S. National Museum No. 1846.

REFERENCES

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Thor, Sig. 1932. Norwegische Tydeidae VIII-XV mit Bemerkungen über die Gattung Tydeus und über Augen, Tracheen usw. Zool. Anz., 98, p. 90.
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DEUTEROPHLEBIA COLORADENSIS PENNAK IN OREGON

(DIPTERA, DEUTEROPHLEBIIDAE)

The small family of mountain midges (Deuterophlebiidae) is of interest because of its rarity, the rather wide distribution of the family, and the restricted distribution of the species. Only four species have been named and two of these are known from the immature stages only. The first three species were described from central Asia, Japan, and northern Korea from 1922 to 1938, and then Pennak (Amer. Mus. Novitates 1276, 1945) described a fourth species from northern Colorado at altitudes of 1,680 to 2,750 meters. The genus was collected by Muttkowski in Wyoming in 1927 but it is not certain that the species he found was *coloradensis*. Other larvae were collected in Mono Co., California but their identity is uncertain and the specimens have been lost. Pennak also reported a larva collected in Rock Creek, Philomath, Benton County, Oregon, but in the absence of the pupa he could only state that the larva was indistinguishable from that of *coloradensis* and that the confirmation of this distribution must await the discovery of the pupa.

Thanks to Dr. Harry D. Pratt, Communicable Disease Center, U. S. Public Health Service, who presented to the U. S. National Museum a single male pupa in excellent condition it is now possible to make this confirmation. This specimen was collected by E. P. Hughes north of Peoria slough, Oregon, April 20, 1947. Presumably this is near Peoria in Linn County, just east of Benton County. These two Oregon specimens probably represent the lowest altitude that the genus has been found in this country if not in the world.

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